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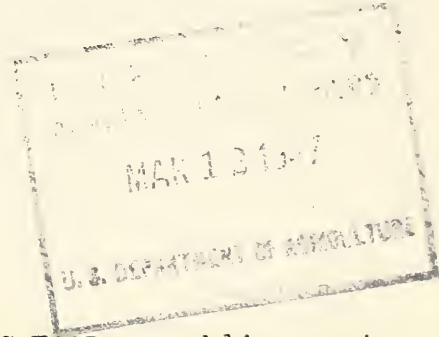
UNITED STATES DEPARTMENT OF AGRICULTURE
PRODUCTION AND MARKETING ADMINISTRATION
INFORMATION SERVICE
150 Broadway
New York, 7: New York

Y O U R F A M I L Y ' S F O O D

For the Week of January 20, 1947

(Topics of the Week:

Breakfasts
New Guava Product
Rose Tinted Fish
"Super" Potatoes
Dried Beans and Peas
Plentifuls



ANNOUNCER: Time once more for YOUR FAMILY'S FOOD, a public service program presented by Station _____, in cooperation with the United States Department of Agriculture. These broadcasts are designed to keep you informed about food, and factors affecting its supply. And here is _____, of the Production and Marketing office in _____, What's doin' in the eatin' line this week, _____?

FMA: I've been thinking about something that has me baffled, _____. It just doesn't seem logical that folks would have to be urged to eat, after they've been fasting for ten to twelve hours.

ANNOUNCER: I should say not! I get plenty mad if I have to go more than five or six hours.

FMA: Is that so? Tell me, _____, what'd you have for breakfast this morning.

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY
JANUARY 1954

REPORT OF THE RESEARCH GROUP ON THE CHEMISTRY OF
THE CARBON-13 ISOTOPE

BY
J. H. COOPER

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DEPARTMENT OF CHEMISTRY

1. The following is a summary of the work done by the research group on the chemistry of the carbon-13 isotope during the year 1953. The work was carried out in the Department of Chemistry, University of Chicago, under the direction of J. H. Cooper. The work was supported by the National Science Foundation, Office of Naval Research, and the University of Chicago.

2. The first part of the work was devoted to the study of the chemical behavior of the carbon-13 isotope in various organic compounds. It was found that the carbon-13 isotope behaves in a very similar manner to the more common carbon-12 isotope in most chemical reactions. However, there are some differences in the rates of reaction and in the equilibrium constants for certain reactions involving the carbon-13 isotope. These differences are attributed to the difference in mass between the two isotopes, which affects the zero-point energy of the molecules.

3. The second part of the work was devoted to the study of the chemical behavior of the carbon-13 isotope in various inorganic compounds. It was found that the carbon-13 isotope behaves in a very similar manner to the more common carbon-12 isotope in most chemical reactions. However, there are some differences in the rates of reaction and in the equilibrium constants for certain reactions involving the carbon-13 isotope. These differences are attributed to the difference in mass between the two isotopes, which affects the zero-point energy of the molecules.

4. The third part of the work was devoted to the study of the chemical behavior of the carbon-13 isotope in various biological systems. It was found that the carbon-13 isotope behaves in a very similar manner to the more common carbon-12 isotope in most chemical reactions. However, there are some differences in the rates of reaction and in the equilibrium constants for certain reactions involving the carbon-13 isotope. These differences are attributed to the difference in mass between the two isotopes, which affects the zero-point energy of the molecules.

5. The fourth part of the work was devoted to the study of the chemical behavior of the carbon-13 isotope in various physical systems. It was found that the carbon-13 isotope behaves in a very similar manner to the more common carbon-12 isotope in most chemical reactions. However, there are some differences in the rates of reaction and in the equilibrium constants for certain reactions involving the carbon-13 isotope. These differences are attributed to the difference in mass between the two isotopes, which affects the zero-point energy of the molecules.

ANNOUNCER: Oh, let's see. Cup of coffee.....fruit juice --- hey! You almost put one over on me. Now I get what you're driving at.

PMA: Good. Yes, I'm talking about breakfasts. Much of our work is with school lunch and feeding industrial workers, you know, and we've found that many school children either just skip breakfast or don't eat enough to keep them going until lunch-time. Same way in factories.....the workers slow up about mid-morning.

ANNOUNCER: I guess the old-fashioned American breakfast of eggs, bacon, oatmeal, fried potatoes, and even apple pie has sort of slipped from the scene. I've even heard that my grandfather had steak for breakfast when he was a young man working in a blacksmith shop.

PMA: Well, he probably needed it. But, of course, you've taken the other extreme from the doughnuts-and-coffee breakfasts so many people rely on these days. After all, a desk worker may get away with a relatively light breakfast..... there's no hard and fast rule about it. But for many people, and especially children, it's a good idea to have one-fourth to one-third of the day's food at the first meal.

ANNOUNCER: What should a good breakfast include --- let's say a medium-sized breakfast.

PMA: Now you're getting into the nutritionists field, and I don't claim to know much about that end of it.

ANNOUNCER: Well, you must have some ideas from talking with your school lunch leaders and industrial dieticians.

1. The first part of the report deals with the general situation of the country and the progress of the work during the year.

2. The second part of the report deals with the results of the work done during the year and the progress of the various projects.

3. The third part of the report deals with the financial statement and the accounts of the year.

4. The fourth part of the report deals with the general remarks and the conclusions drawn from the work done during the year.

5. The fifth part of the report deals with the general remarks and the conclusions drawn from the work done during the year.

6. The sixth part of the report deals with the general remarks and the conclusions drawn from the work done during the year.

7. The seventh part of the report deals with the general remarks and the conclusions drawn from the work done during the year.

8. The eighth part of the report deals with the general remarks and the conclusions drawn from the work done during the year.

9. The ninth part of the report deals with the general remarks and the conclusions drawn from the work done during the year.

10. The tenth part of the report deals with the general remarks and the conclusions drawn from the work done during the year.

11. The eleventh part of the report deals with the general remarks and the conclusions drawn from the work done during the year.

FMA: Yes.....they insist that breakfast should provide materials for body-building and repair. It should also provide energy.

ANNOUNCER: I think it ought to taste good, too. I guess, though, that coffee and "sinkers" alone won't supply much energy or nutrition. But they sure taste good.

FMA: Well, _____, no one said you couldn't have doughnuts. But they should be sort of the breakfast "dessert". But if you don't eat some fruit and an egg or cereal, then you're leaving too much for the other meals to make up.

ANNOUNCER: I suppose you adjust the cereals and eggs according to the amount of work you're going to do during the morning?

FMA: That's it.....the heavier the work, the more energy you'll need. So just keep adding calories from bacon, sausage, and other meats. The whole point is that we all should eat a better breakfast.

ANNOUNCER: I wonder why it is that breakfast so often is slighted.....?

FMA: I guess we like to get that last five minutes of sleep too well. Then, too, they tell me some people think they can keep from gaining weight by eating a bird-sized breakfast.

ANNOUNCER: But more breakfast and less lunch would be better, is that it?

FMA: Well, less calories for lunch. By that I mean the day's calory quota could be spread over three meals, instead of trying to make it a zero at breakfast.

ANNOUNCER: I'll bet a good breakfast would make things look better to a lot of folks.

PMA: You know, speaking of good breakfasts, and good things for breakfast, reminds me of a new product recently developed at the Hawaii Experiment Station --- dehydrated guava ((GWAH-VA)) juice powder.

ANNOUNCER: Dehydrated what?

PMA: Guava juice. Surely you've heard of guava fruit.....? G-U-A-V-A.

ANNOUNCER: Not guilty. I wouldn't know a guava fruit if it fell off its tree and hit me. In fact, I don't even know if it has a tree.

PMA: Well, it does. Much of the guava fruit which grows uncultivated in Hawaii has never found a commercial use, although we have known and used guava jelly for some years. At any rate, the fruit is rich in vitamin C and high in pectin, and during the war was used as a relatively cheap source of the C vitamin for military rations.

ANNOUNCER: So far I follow you. But what do we do with this dehydrated powder?

PMA: The big advantage is that the dehydration makes it possible to ship guava juice economically to distant markets in a convenient and stable form. The powder holds the jellying properties of the original fruit and thus could be used wherever desired in making guava jelly, or as a concentrated pectin for jellying other fruits. Or, it can be a means of adding vitamin C to other fruit juices....and as a flavoring for ice cream and candy.

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ANNOUNCER: I get a kick out of trying new foods. When some of that guava powder comes to market, you can count on me to give guava-flavored ice cream a try.

PMA: Well, if you go in for new foods, there's a comparatively new fish on Northeast markets these days.

ANNOUNCER: Really. Do tell me more.

PMA: Of course, it's quite possible you've eaten rosefish many times.

ANNOUNCER: Rosefish? No, Don't think I've ever had any. As a matter of fact, I have heard of it, but I thought it wasn't sold commercially for food.

PMA: You're just about fourteen years behind the times. They didn't used to be caught in volume, because folks in the fish industry thought they had little commercial value.

ANNOUNCER: Now I take it there's been a change of heart.

PMA: Yes. Thanks to the filleting industry and the development of new markets, rosefish now make up about one-fourth of the total fish catch in New England.

ANNOUNCER: That sounds like an awful lot of fish.

PMA: Just to show you how right you are let me scatter a few statistics your way. According to a recent report of more than 150 million pounds of frozen fish held in storage, rosefish accounted for over 15 million pounds. New England warehouses are bulging with over 9 million pounds of the total. In fact, there is so much rosefish on hand in this area that

1870. The first year of the new century.

The first year of the new century.

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PMA: New England fisherman have temporarily stopped rosefishing
(continued) operations.

ANNOUNCER: I take it then that most of these fish are caught in the
Atlantic Ocean.

PMA: Yes, fairly close to the New England shore. They are brought
into Gloucester, Massachusetts, principally. After the fish are
landed, they're dressed in fillet form and sold either fresh or
frozen.

ANNOUNCER: Are folks in other parts of the country familiar with rosefish?

PMA: A good volume moves to the midwest, but most of them are eaten
right here in the eastern States.

ANNOUNCER: That's all very fine, but will you please tell me one thing.
If so many rosefish are sold right here, why haven't I had the
pleasure of sampling one.

PMA: Probably you have. To paraphrase one of Shakespear's famous
quotations: a rosefish by any other name, be it "redfish,"
"sea perch," or "ocean perch".....

ANNOUNCER: Hold on, now I'm beginning to see the light. I don't remember
eating rosefish, but I've had sea perch fillets often. Its
flesh is sort of a faint rose color. Very pretty, as a matter
of fact, and very easy on the appetite.

PMA: And very easy to prepare, too. The fillets are practically
boneless. They're protected by their wrappings and are ready
for use without too much fuss.

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ANNOUNCER: What with over-flowing supplies of rosefish or sea perch, or redfish or ocean perch.....(PHEW) and all those potatoes we hear about you've got the basis for a fine fish dinner.

PMA: You're right on both counts. Spuds and rosefish do form the foundation for a tasty meal. And potatoes are still abundant. As a matter of fact, the U. S. Department of Agriculture recently urged that growers and shippers furnish consumers with "super" quality potatoes.

ANNOUNCER: That sounds wonderful, but what is a "super" potato?

PMA: As you probably know, potatoes are marketed according to grade.

ANNOUNCER: Check.

PMA: Well, these "super" potatoes that I'm referring to are, of course U.S. No. 1 grade. There are, however, different size classifications for this grade.

ANNOUNCER: I'm following you.

PMA: In other words, U.S. 1 potatoes are not a uniform size or weight, though they do have to meet specific standards.

ANNOUNCER: Such as, sir?

PMA: With straight U.S. No. 1's the minimum size is 1-7/8 inches in diameter, without any maximum size limitations. Some U.S. 1 potatoes go as high as 3-3/4 inches or more in diameter and weigh more than 18 ounces.

ANNOUNCER: Which I take are the "super" potatoes.

PMA: No. They would be too large. U.S. No. 1 grade round potatoes produced in the Northeast, with a diameter of 2-1/2 inches would be "super" potatoes.

ANNOUNCER: Sort of tailored-made potatoes.

PMA: You might call them that. Since there are several million bushels of potatoes in temporary storage, and larger than usual supplies in permanent storage, consumers might just as well benefit by having spuds of large uniform size. And in the long run growers should also benefit from an increased "potato appetite" built up by the folks who eat and enjoy them.

ANNOUNCER: It sounds like a good set-up to me. Do you have any other made-to-measure vegetables on the agenda for today, _____?

PMA: Well, I can bring you up to date on the dried beans and peas that will be available during the first three months of this year.

ANNOUNCER: You mean how many beans for our Saturday night bean dinners, and how much we'll have for split pea soup?

PMA: That's it. According to a recent announcement of the Production and Marketing Administration folks in the United States have been allotted less dried beans than they got during the first three months of last year.

ANNOUNCER: That sounds like smaller helpings to me.

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PMA: No. It's not as bad as it sounds. We'll be able to buy about as much as we did a year ago, because we haven't used up the supplies that were provided for us in the last three months of 1946.

ANNOUNCER: I see. There's a carry-over, so that will help to boost our present allotment, and balance the scales to about last year's level.

PMA: That's it, exactly.

ANNOUNCER: I understand that beans are pretty important.

PMA: In more ways than you might think. Did you know they once figured prominently in politics?

ANNOUNCER: Can't say that I did. But do enlighten me.

PMA: Many years ago in a little town in England if you wanted to run for mayor, you sat around a little circle with other candidates. Each one held a hatful of beans. Then someone put a pig in the center of the circle. If the pig started to eat the beans out of your hat.....then you were the new mayor.

ANNOUNCER: A very unique kind of election, and a very odd use for beans.

PMA: The modest bean has more than its political past to brag about. When it's dried it counts as a building food, an energy food, and to some extent as a protective food.

ANNOUNCER: Is it true that dried beans have a lot of fat?

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PMA: More than any other vegetable. They also contain more protein. Nutritionists say it's not a "complete" protein, though, and must be supplemented by animal proteins such as eggs, milk, meat, or fish. Dried beans are also very rich in iron, supply Vitamin B₁, calcium, and phosphorus.

ANNOUNCER: Incidentally, when we talk of dried beans, exactly what kind do we refer to?

PMA: There are many bean varieties. There's the Pea, Great Northern, Small White, Flat White, Red Kidney, Standard and Baby Limas, Pinks, Small Reds, Pintos, and Blackeyes, just to mention the best known.

ANNOUNCER: Well, I should say that we've done dried beans up brown, so suppose we skip along to those dried peas you mentioned a while back. How will our supplies compare with those we had last year?

PMA: Here again allotments of dried peas will be smaller than they were in the first three months of 1946. We got a larger supply in the latter part of last year, however, so there'll probably be enough to go around.

ANNOUNCER: Dried peas are supposed to be pretty good protein providers, too, aren't they?

PMA: Yes, but like dried beans they are not a complete protein either. Food specialists tell us that they do help out as building material, and are also a good source of minerals and vitamins B₁ and C.

The first part of the paper is devoted to a general discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The second part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The third part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The fourth part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The fifth part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The sixth part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The seventh part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The eighth part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The ninth part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The tenth part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe.

ANNOUNCER: There seems to be quite a bit of goodness rolled up in those hard little balls. And now, _____, do you have your list of plentiful foods for this week?

PMA: Right here. Starting with the vegetables, there're lots of onions and cabbage, and good supplies of snap beans, sweet-potatoes, and turnips. As we mentioned before, potatoes are still abundant. Homemakers should find cauliflower reasonably priced, and in some places they'll find mushrooms a good buy.

ANNOUNCER: And now how about fruits?

PMA: Apples are still in the lead. And there's plenty of vitamin C to be had in the form of oranges, grapefruit and tangerines.

ANNOUNCER: A very fine selection, I should say. And now let me say "thank you, _____, for being with us today." Our guest on this edition of YOUR FAMILY'S FOOD was _____ of the _____ office of the U. S. Department of Agriculture's Production and Marketing Administration.

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